

period and repeated within two to three hours. The drug can be administered orally, from 100 to 200 mg four times daily, for the suppression of ectopic beats or prophylaxis against recurrent paroxysmal tachycardia.

Toxic manifestations of diphenylhydantoin are seen in approximately 10 to 15 percent of patients and include nervousness, ataxia, tremors, nystagmus, visual disturbances, respiratory arrest, confusion or drowsiness, gastric distress, erythematous or morbilliform cutaneous eruptions and hyperplasia of the gums.

**Beta Adrenergic Blocking Agents.** Interest in blocking the effects of adrenergic nerve stimuli is attributed to Dale who, in 1906, described the reversal of the pressor response to epinephrine by pretreating experimental animals with certain ergot compounds. Ahlquist recognized two types of adrenergic receptors and designated these alpha and beta.

Propranolol reduces the heart rate and cardiac contractile force. Arterial pressure and ascending aortic flow are slightly reduced in anesthetized dogs. As these changes do not occur after depletion of norepinephrine stores by syrosingopine, it is concluded that they result from blockade of resting sympathetic drive. In humans, administration of propranolol will cause a decrease in cardiac output and left ventricular work at rest and during exercise. Propranolol will abolish the vasodilation effects of epinephrine and isoproterenol but not the vasoconstrictor effects of the catecholamines on the peripheral vessels.

With intravenous administration, propranolol exerts a rapid antiarrhythmic action. Propranolol is usually given slowly in doses of 1 to 5 mg intravenously (no more than 1 mg every two or three minutes) or 15 to 30 mg three to four times daily may be given by the oral route prophylactically to prevent the return of ectopic beating. The action is usually immediate during the intravenous administration and the drug may be repeated within two to three hours.

The side effects of propranolol may include lightheadedness, drowsiness, nausea, diarrhea, sleeplessness, rashes, visual disturbances, purpura, paresthesias, flushing, and mental confusion. The pharmacologic effects of propranolol have produced hypotension, bradycardia, cardiac failure, A-V heart block, bronchial wheezing and aggravation of mild obstructive pulmonary disease.

## Current Status of Multiphasic Screening

CMA HOUSE OF DELEGATES, Resolution No. 37-69 calls for the profession to be kept informed of progress and development in the field of multiphasic screening. It also asks that appropriate component parts of multiphasic screening be defined. Since the adoption of this resolution, the need for information has increased. Multiphasic screening has become big business with major organizations promoting programs for hospitals, medical societies, union groups, retirement communities, etc. The CMA Council has given the responsibility for following developments in this field to the Commission on Community Health Services. The following is the commission's report as of this time.

Unfortunately it is not yet clear just what part multiphasic screening should properly play in health care. Nor is it possible to delineate the appropriate components of a multiphasic screening program with any precision. Therefore, this report can only raise some of the critical questions which we feel must be answered.

Programs for large populations are being promoted on the basis that they will provide early detection and/or prevention of disease. Certainly the objective cannot be questioned. However, there is little concrete evidence that the method accomplishes the objective. A large group is surveyed and the proponents report that 40 percent have been found to have positive findings. Evaluation of the significance of such positive findings must be critically examined. There is virtually no meaning in merely reporting that so many cases of a given condition were discovered as the result of a mass survey of so many people, unless it can also be demonstrated that the existence of the condition was unknown either to the patient or to his physician. Furthermore, unless it can be shown that detection of the condition materially affects the prognosis there is little value in detection per se.

In reporting "positive findings" no effort has been made by the proponents to screen out what might be no more than false positive laboratory findings. The raw data resulting from the Cannery Workers' program suggest that when proper follow-up is done and these factors considered the yield of truly significant findings may be remarkably small. However, the data in question has not yet been adequately studied to justify firm conclusions. Application for a research grant has been submitted which would make possible complete follow-up of the individuals tested and thorough analysis of the data. California Medical Association has cooperated with the Cannery Workers' program in the past and continues to do so. County medical societies have been urged to arrange follow-up of "positive findings" by competent local physicians and should try to cooperate with the research project if it develops.

In evaluating the yield of multiphasic screening programs each component, of course, must be studied individually. The overall program and the individual components must be assessed in

terms of cost as well as yield. Again the statements of the proponents that it costs \$40 or \$50 or \$60 to screen an individual has little meaning. The cost of the follow-up studies must also be included and then assessed against the useful yield. It is quite likely that the cost of follow-up will prove to be considerably more than the cost of the original screening and this possibility should certainly be pointed out to groups considering such a program.

Since critical questions remain unanswered, the Commission on Community Health Services recommends that component societies and individual physicians continue an expectant attitude toward multiphasic screening. Concerned organizations and the general public should feel that the profession is available for advice. At this time we believe programs should be limited as to the number of people included and to those few components which, in professional judgment, are most likely to be of value.

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Chairman, Commission on  
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